REMARKS

Reexamination and reconsideration of this application is respectfully requested in light of the foregoing amendments to the claims and the following remarks.

Claims 1-18 are pending in this application. No new claims have been added. Claims 1-5, 7, 8 and 10-18 have been amended. No new matter has been added to the claims. Support for the amendments can be found at page 15, line 13 to page 16, line 6 of the specification.

Applicant notes the Examiner's consideration of the information cited in the Information Disclosure Statements filed March 26, 2004, November 30, 2005, and February 27, 2006 as acknowledged in the Office Action Summary as well as acceptance of the drawings filed on March 26, 2004. Applicant further notes the Examiner's acknowledgment of Applicant's claim for foreign priority under 35 U.S.C. § 119 and receipt of the certified priority document.

Objections to the Claims

Claims 10 and 12 are objected to because the term "processings" is misspelled. The term has been amended to recite "processes". The error in the term more grammatical error than a misspelling. It is believed that by this amendment, the language is more grammatically correct and that the objection is overcome.

Rejection under 35 U.S.C. § 101

Claims 1-11 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter in that the claims do not include functional descriptive material. While Applicant appreciates the Examiner's suggestion for amending independent claims 1 and 7, Applicant

respectively traverses this rejection. The storage device recited in independent claims 1 and 7 includes a storage medium, a crypotographic unit, and a host device (such as a recorder device or a computer). Each of these are structural elements. The function of the cryptographic processing unit is not executed by the host computer reading the instruction stored in the storage device. This function is executed by the storage device itself. Accordingly, there is sufficient structure set forth in the claims to comply with the requirements of 35 U.S.C. § 101. It is respectfully requested that the rejection be reconsidered and withdrawn.

Rejection Under 35 U.S.C. § 112

Claims 1-18 stand rejected under 35 U.S.C. § 112, second paragraph, in that the terms "input/output" and "inputting/outputting" are indefinite. While Applicant considers the terminology used to be understood by a person of ordinary skill in the art, in order the further clarify the terms for the Examiner, they have been amended to recite "input and output" and "inputting and outputting," respectively. It is believed that by this amendment the rejection is overcome.

Rejection Under 35 U.S.C. § 102

Claims 1, 4, 5, 7, 8 and 10-16 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Ohta et al. (U.S. Patent No. 7,158,637). The present invention requires that the cryptographic processing unit simultaneously processes subprocesses belonging to two or more different cryptographic input and output processes, respectively, by referring to identifying

information attached to the command and identifying the cryptographic input and output process to which the command belongs.

Ohta et al. disclose encryption processing unit **102** wherein data is divided into multiple data blocks of B1 bits. As pointed out above, the present invention, relates to dividing data the cryptographic processing is divided into multiple subprocesses, each having its own command so that multiple cryptographic processing can be processed in parallel. The Examiner relies on the teaching of Ohta et al. at col. 2, lines 7-11 which states:

> Also, a second object to the present invention is to provide a security communication packet processing apparatus that makes it possible to perform at lease one encryption (or decryption) processing and the authentication processing for plural packets simultaneously or in parallel.

The independent claims herein require that this is accomplished by referring to identifying information attached to the command and identifying the cryptographic input and output process to which the command belongs. These functions is not disclosed or suggested by Ohta et al.

According to Ohta et al. at col. 2, line 62 to col. 3, line 3: the "second object [set forth above] may be achieved by the security communication packet processing apparatus according to the present invention, wherein the number of a least one of the encryption processing unit and the authentication processing unit is two or more and the number of the data block accumulation unit is equal to that of the encryption processing unit." There is no teaching of referring to identification information attached to a command and identifying the cryptographic process to which the command belongs as required by the independent claims. Further, the reference does not disclose or suggest that when the cryptographic processing unit receives an incorrectly sequenced command, it interrupts the cryptographic input and process to which the command

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belongs. Further the reference does not disclose or suggest allowing the storage device to predetermine an upper-limit number of the cryptographic input and output processes that the storage device can perform simultaneously in accordance with its own performance.

The Office Action does not establish a *prima facie* case of anticipation of claims 1, 4, 5, 7, 8 and 10-16 by Ohta et al. "A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference." *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994); *see Karsten Manufacturing Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001) ("Invalidity on the ground of 'anticipation' requires lack of novelty of the invention as claimed. . . . that is, all of the elements and limitations of the claim must be shown in a single prior reference, arranged as in the claim."). For all of the foregoing reasons, Ohta et al. does not disclose each and every element of the claims rejected. Accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Rejection Under 35 U.S.C. § 103

Claims 2, 3, 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohta et al. (U.S. Patent No. 7,158,637) and Callum (U.S. Patent No. 6,295,604). The arguments regarding Ohta et al. set forth *supra*, are equally applicable to this rejection and are incorporated herein by reference. The deficiencies of Ohta et al. are not made up by the addition of Callum.

Callum fails to teach, let alone suggest, a simultaneous and parallel handling of plural subprocesses, each having its own command, so that multiple cryptographic processing can be

processed in parallel, by referring to identification information attached to a command and identifying the cryptographic process to which the command belongs as required by the independent claims. Further, the reference does not disclose or suggest that when the cryptographic processing unit receives an incorrectly sequenced command, it interrupts the cryptographic input and process to which the command belongs. Further the reference does not disclose or suggest allowing the storage device to predetermine an upper-limit number of the cryptographic input and output processes that the storage device can perform simultaneously in accordance with its own performance. Also, neither Ohta et al. nor Callum, taken alone or in combination, disclose a receiving step which requires the steps of (i) determining whether the received command is a correctly sequenced command in the cryptographic input and output process and (ii) accepting the command successfully when the received command has been determined to be a correctly sequenced command or rejecting the execution of the received command when the received command has been determined to be an incorrectly sequenced command.

For all of the foregoing reasons, the Office Action does not establish a *prima facie* case of obviousness of claims 2, 3, 17 and 18 as being unpatentable under 35 U.S.C. § 103(a). It is respectfully requested that the rejection be reconsidered and withdrawn.

Claims 6 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohta et al. (U.S. Patent No. 7,158,637) and Porter et al. (U.S. Published Application 2003/0226029). The arguments regarding Ohta et al. set forth *supra* in the rejection under 35 U.S.C. § 102(b) are

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equally applicable to this rejection and are incorporated herein by reference. Porter et al. do not make up for the deficiencies of Ohta et al.

Porter et al. fail to teach, let alone suggest, a simultaneous and parallel handling of plural subprocesses, each having its own command, so that multiple cryptographic processing can be processed in parallel, by referring to identification information attached to the command and identifying the cryptographic process to which the command belongs as required by the independent claims. Further, the reference does not disclose or suggest that when the cryptographic processing unit receives an incorrectly sequenced command, it interrupts the cryptographic input and process to which the command belongs.

For the foregoing reasons, the Office Action does not establish a *prima facie* case of obviousness of claims 6 and 9 as being unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Ohta et al. and Porter et al. It is respectfully requested that the rejection be reconsidered and withdrawn.
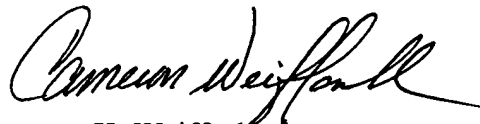
Conclusion

For the foregoing reasons, it is submitted that the claims 1-18 are patentable under 35 U.S.C. §§ 101 and 112 (second paragraph), and over the teachings of the prior art relied upon by the Examiner. Accordingly, favorable reconsideration of the claims is requested in light of the preceding amendments and remarks. Allowance of the claims is courteously solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicant's attorney at the telephone number shown below.

Application No.: 10/809,815

A petition for a one-month extension of time under 37 C.F.R. 1.136 is hereby made.
Please charge any shortage in fees due in connection with the filing of this paper, including
extension of time fees, to Deposit Account 500417 and please credit any excess fees to such
deposit account.

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